AIDS in Africa

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Summary

Sub-Saharan Africa ("Africa" hereafter) has been more severely affected by AIDS than any other world region. In 2007, the United Nations reports, there were about 22.5 million HIV-positive persons in Africa, which has nearly 12% of the world's population but about 68% of the global total of infected persons. The adult rate of infection in Africa in late 2005 was 6.1%, compared with 1% worldwide, but had dropped to 5% by 2007, compared to .8% worldwide. Nine southern African countries have infection rates above 10%. In 2007, 35% of all people living globally with HIV lived in Southern Africa, where 32% of all global new HIV infections and AIDS deaths occurred. About 90% of infected children globally live in Africa, where about 61% of infected adults are women. As many as 30 million Africans may have died of AIDS since 1982, including 1.6 million who died in 2007, accounting for about 76% of global AIDS deaths in 2007. AIDS has surpassed malaria as the leading cause of death in Africa. It kills many more Africans than does war.

Experts attribute the severity of Africa's AIDS epidemic to poverty, lack of female empowerment, high rates of male worker migration, and other factors. Many national health systems are ill-equipped for prevention, diagnosis, and treatment. AIDS causes severe socioeconomic consequences, e.g., declines in economic productivity due to sharp drops in life expectancy and the loss of skilled workers. It also devastates family structures. There are about 11.4 million African AIDS orphans, many of whom lack access to adequate nutrition and social services.

Private organizations and the governments of donor and African nations have responded by supporting diverse efforts to prevent and reduce the rate of new infections and by trying to abate damage done by AIDS to families, societies, and economies. The adequacy of this response is much debated. An estimated 1.3 million Africa AIDS patients receiving antiretroviral (ARV) drug treatment in late-2005, up from 150,000 in mid-2004. An estimated 4.8 million Africans needed such therapy in late 2005. U.S. and other initiatives are reportedly sharply expanding access to treatment. Advocates see this goal as an affordable means of reducing the impact of the pandemic. Skeptics question whether drug access can continue to be rapidly scaled up in the absence of costly general health infrastructure improvements.

U.S. concern over AIDS in Africa grew in the 1980s, as the epidemic's severity became apparent. Congress has steadily increased funding for global AIDS programs. P.L. 108-25, signed into law on May 27, 2003, authorized $15 billion over five years for international AIDS programs under the President's Emergency Plan for AIDS Relief (PEPFAR). Twelve of 15 PEPFAR "focus countries" are in Africa. Under the FY2008 budget request, these 12 countries would receive $3.421 billion under the State Department's Global HIV/AIDS Initiative. Many activists have praised the extent of such aid, but some urge that more funding or different programs be provided. Congress is likely to re-authorize PEPFAR, which expires after FY2008, or create a successor program. Other bills in the 110th Congress that focus on AIDS in Africa include S. 805 (Durbin), H.R. 3812 (Lee), H.R. 1713 (Lee), S. 2415 (Clinton), and S.Con.Res. 31 Global AIDS appropriations are discussed in other CRS reports cited within this report, which will be updated periodically.

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Recent Key Developments

On January 31, 2008, the House Committee on Foreign Affairs announced that a markup hearing would be held on February 7, 2008, which would consider a House bill entitled The Global HIV/AIDS, Tuberculosis and Malaria Reauthorization Act of 2008, for which no text or bill number was immediately available.

On January 25, 2008, the White House announced that President Bush and Mrs. Bush would travel to five African countries from February 15-21, 2008, in part to enable the President "to review firsthand the significant progress since his last visit in 2003 in efforts to [...] fight HIV/AIDS, malaria, and other treatable diseases, as a result of the United States robust programs in these areas." President Bush had first stated his intention to visit Africa in 2008 during a November 2007 speech marking World AIDS Day, 2007. In the speech, he also called on the Congress to support his May 2007 call to double U.S. international funding for AIDS, to $30 billion over five years, starting in 2009.[1]

International AIDS issues are further covered in CRS Report RL33485, *U.S. International HIV/AIDS, Tuberculosis, and Malaria Spending: FY2004-FY2008*, by Tiaji Salaam-Blyther; CRS Report RL34192, *PEPFAR: Policy Issues from FY2004 through FY2008*, by Tiaji Salaam-Blyther; CRS Report RL33396, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Progress Report and Issues for Congress*, by Tiaji Salaam-Blyther; and CRS Report RL31712, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background*, by Tiaji Salaam-Blyther.

Characteristics of the African Epidemic[2]

Overview

Sub-Saharan Africa ("Africa" hereafter) has been far more severely affected by HIV/AIDS[3] than any other world region. In December 2007, the Joint United Nations (U.N.) Program on HIV/AIDS (UNAIDS)[4] released an update on the global AIDS epidemic. It reported that in 2007, there were between 20.9 million and 24.3 million HIV-positive adults and children in Africa, including 1.7 million newly infected during the year. Africa has nearly 12% of the world's population but about 68% of the global total of infected persons. In 2007, about 1.6 million adults

[1] The five countries are Liberia, Benin, Tanzania, Rwanda, and Ghana. See White House Press Secretary, "President and Mrs. Bush to Visit Africa," January 25, 2008, and "President Bush Discusses World AIDS Day," November 30, 2007.

[2] The following data are primarily drawn from a Joint United Nations Program on HIV/AIDS report *AIDS Epidemic Update* (December 2007) and UNAIDS, *2006 Report on the Global AIDS Epidemic* (May 2006), supplemented by other published UNAIDS and other U.N. agency data. Every two years UNAIDS publishes a comprehensive report AIDS-related demographic trends, the impact of AIDS on people and societies, the status of prevention, treatment, and care, and other issues concerning national and international response to AIDS. It publishes one or more updates in intervening years.

[3] AIDS is an acronym for Acquired Immunodeficiency Syndrome, a disease that typically destroys or impairs the immune system and is acquired through infection by strains of the human immunodeficiency virus, commonly known as HIV. The two acronyms are often joined to form the compound term HIV/AIDS.

[4] UNAIDS, the Joint United Nations Program on HIV/AIDS, helps coordinate the AIDS-related efforts of ten U.N. and multilateral program and donor agencies in over 80 countries worldwide. The UNAIDS Secretariat is headquartered in Geneva, Switzerland.

and children were estimated to have died of AIDS, comprising about 76% of global AIDS deaths in 2007, down from a 2006 estimate of about 2.1 million deaths, when African AIDS deaths made up about 72% of global AIDS deaths. Aggregate estimates of deaths caused by AIDS suggest that many as 30 million Africans may have died of AIDS since 1982, at the start of the epidemic, including those who perished in 2007.[5] UNAIDS has projected that between 2000 and 2020, 55 million Africans will likely have lost their lives to AIDS, which is the primary cause of death in Africa. It causes more deaths than malaria in African adults, and kills many times more people than Africa's armed conflicts.

Prevalence

Multiple health survey data show that the countries with the highest HIV/AIDS prevalence or infection rates globally are in Africa. The adult rate of infection in Africa in late 2005 was 6.1%, compared with 1% worldwide, but had dropped to 5% by 2007, compared to .8% worldwide. National prevalence rates for individual African countries are shown in **Table 1** . The relative accuracy of such estimates may vary; see "Note," **Table 1**.

Table 1. African Adult HIV Infection Prevalence Rates (%), End of 2005 or Later

More Than 10%		5%to 10%		Less than 0.1%to 5%			
Swaziland*	25.9	Gabon	7.9	Nigeria	3.9	Burkina Faso*	2
Botswana	24.1	Uganda*	7.1	Guinea-Bissau	3.8	Sudan	1.6
Lesotho	23.2	Tanzania	6.5	Angola	3.7	Sierra Leone*	1.5
Namibia	19.6	Cent. African Rep.*	6.2	Chad*	3.3	Guinea*	1.5
Zimbabwe*	18.1	Kenya	6.1	Burundi	3.3	Liberia*	1.5
Zambia	17.0	Cameroon	5.4	Congo, Dem. Rep.	3.2	Ethiopia*	1.4
South Africa*	16.2	Congo	5.3	Equat. Guinea	3.2	Mali*	1.3
Mozambique	16.1	Côte d'Ivoire*	4.7	Togo	3.2	Benin	1.2
Malawi	14.1			Djibouti	3.1	Niger*	0.7
				Rwanda*	3.0	Senegal*	0.7
				Eritrea	2.4	Somalia	0.9
				Gambia	2.4	Mauritania	0.7
				Ghana	2.3	Mauritius	0.6
						Madagascar	0.5
						Comoros	<0.1

[5] These totals reflect rough estimates of total numbers of deaths and were compiled by aggregating the total numbers of deaths reported for all years since 1982, based on data reported in various published UNAIDS and World Health Organization (WHO) sources (list available to congressional clients from the author upon request). This method may not be statistically or methodologically sound, in part because statistical and data collection methods have changed over time or varied from study to study. Many statisticians harbor doubts about the reliability of death and infection rate data collected during the early years of the epidemic. UNAIDS does not regularly publish aggregate historical regional mortality figures for Africa for similar reasons, and because not all countries have authorized the release of data covering all years.

Source: UNAIDS, 2006 Report on the Global AIDS Epidemic, May 2006; and UNAIDS, AIDS Epidemic Update, December 2007.

Note: Data are from the 2006 report except in cases denoted by an asterisk, which are from the 2007 update. Data drawn from the 2007 update are listed in cases where a population-based survey was conducted in 2005 or later. Data for Liberia, from a 2007 survey, are preliminary. No prevalence rates were reported in either report for Cape Verde, Sao Tome, or Seychelles. UNAIDS is a key source of national AIDS data in Africa, and is the most widely cited uniform source of demographic HIV statistics. UNAIDS regularly factors new research assumptions and modeling methodologies into its estimates, which are largely based on national data. These data vary in quality due to countries' disparate data collection capacities and the availability of resources to conduct surveys. As a result of such factors, UNAIDS has periodically revised some of its prevalence estimates. In recent years, some researchers have asserted that improved data collection and statistical models have shown that UNAIDS may have overestimated infection rates in a number of countries. UNAIDS appears to have concurred with such concerns in some instances. In 2007 UNAIDS published revised regional and global AIDS demographic data, which included downward revisions of some prevalence estimates. These revisions were attributable to the availability of data from an increasing number of national population-based surveys and improved sentinel surveillance (use of a representational population sub-groups, like pregnant women, as a surrogate for projections among the general population), and other methodological factors. For some African countries, it also provided information on national HIV prevalence rates derived from the most recent population-based health survey in countries that have conducted them since 2002. In some cases, these rates were lower than the previous UNAIDS national prevalence rate estimates, published in May 2006 (UNAIDS, *2006 Report on the Global AIDS Epidemic)*. UNAIDS is expected to release new comprehensive country estimates in 2008. See Craig Timberg, "How AIDS in Africa was Overstated," *Washington Pos*t, April 6, 2006, *inter alia*, and UNAIDS, *AIDS Epidemic Update*, December 2007 and UNAIDS, "Q&A on HIV/AIDS Estimates," November 2007.

Prevalence Trends

UNAIDS has reported that Africa's adult HIV infection rate, or prevalence, has begun to stabilize or decline moderately in recent years, having peaked around year 2000, as both the total adult and infected populations have increased. Stabilization means that numbers dying approximate the numbers of newly infected, and that net infections are thus halted or nearly curbed. HIV has become endemic in many countries; at a minimum, it will affect several future generations. There have been declines in Kenya, Zimbabwe, and urban areas in some countries. Prevalence had been increasing in southern Africa in recent years, apart from Zimbabwe and Angola. The 2007 UNAIDS update, however, found that apart from Mozambique—where prevalence was increasing—the epidemic had "reached" or was "approaching a plateau." It found that in Zimbabwe there was a "significant decline" in national prevalence rates, and that adult prevalence in East Africa was stable or beginning to decline. In West and Central Africa, adult prevalence was either generally stable or there were prevalence declines, as in Côte d'Ivoire, Mali, Benin, and parts of Burkina Faso. Recent prevalence declines are attributable to a combination of deaths of infected persons; declines in new infections due to behavioral change and increased access to testing; the scaling up of access to drug therapy; and, in some cases, improved social services and access to better nutrition.

Highest Rates

Southern Africa, where nine countries have adult infection rates above 10% (**Table 1)**, is the most severely affected region. However, populous Nigeria in West Africa, with an estimated 3.9% adult infection rate (end-2005), had an estimated 2.9 million infected people,[6] the largest number in Africa apart from South Africa. There, between 5.5 million and 6.1 million [UNAIDS average and South African government estimates] are infected—the largest such population in the world.

[6] UNAIDS estimates for Nigeria vary widely, however, from 1.7 million to 4.2 million.

Transmission

Since the 1980s, HIV in Africa has been viewed by many researchers as being spread primarily by heterosexual contact, though some believe that the role of unsafe medical practices in the spread of HIV may have been underestimated.[7] Both sexual and medical HIV transmission prevention are components of the President's Emergency Plan for AIDS Relief (PEPFAR).

Women

There were roughly 13.73 million women HIV-positive women in Africa in 2007, up from about 13.2 million HIV-positive women in Africa in 2005.[8] They comprised about 59% of infected adults in Africa and about 76% of HIV-positive females globally in late 2005; women comprised a slightly higher proportion of all AIDS infections in Africa, 61%, by 2007. Young women are notably at risk. In 2005, about 4.3% of African women aged 15 to 24 were HIV-positive, compared with 1.5% of young men. Figures for these groups had dropped from 6.9% for women and 2.2% for men in 2004.

Table 2. Ten African Countries with the Largest Populations of HIV-Positive Women as of late 2005

Country	Estimated Number of HIV-Positive Women
South Africa	3,100,000
Nigeria	1,600,000
Mozambique	960,000
Zimbabwe	890,000
Kenya	740,000
Tanzania	710,000
Zambia	570,000
Congo, Democratic Republic of	520,000
Uganda	520,000
Malawi	500,000

Source: UNAIDS, 2006 Report..., Annex 2: HIV/AIDS Estimates and Data, 2005 and 2003, Table 1, Estimated Number of People Living with HIV.

Children

Africa's AIDS epidemic has a proportionally much greater effect on children in Africa than in other world regions. According to UNAIDS, over 600,000 African infants become infected yearly with HIV through mother-to-child transmission (see "Maternal Transmission," below), during

[7] John C. Caldwell et al., "The Social Context of AIDS in sub-Saharan Africa," *Population and Development Review*, (15:2,), June 1989, and John C. Caldwell and Pat Caldwell, "The African AIDS Epidemic," Scientific American, (274:3), March 1996, *inter alia*. Some argue that researchers tracking the African AIDS epidemic may be significantly underestimating the role of medical and other non-heterosexual sexual modes of HIV transmission. Such views are contested, however, as several articles by proponents of this claim (e.g., David Gisselquist et al.) and responses of their critics in the *International Journal of STD & AIDS* in 2003/2004 demonstrate.

[8] CRS calculation using UNAIDS data on total regional AIDS population figures and female proportions thereof.

pregnancy, at birth, or through breast-feeding. Most die before the age of two. Nonetheless, roughly 2.24 million African children under age 15 were living with AIDS in 2007,[9] down slightly from an estimated 2.3 million in late 2005. Nearly 90% of HIV-positive children worldwide live in Africa. Less than 10% of these African children receive basic support services. An estimated 12 million children less than 17 years of age, slightly less than 10% of all African children, are believed to have lost one or both parents to AIDS in recent years.

Table 3. Ten African Countries with the Largest Populations of HIV-Positive Children as of late 2005

Country	Estimated Number of HIV-Positive Children
Nigeria	240,000
South Africa	240,000
Zimbabwe	160,000
Kenya	150,000
Mozambique	140,000
Zambia	130,000
Congo, Democratic Republic of	120,000
Uganda	110,000
Tanzania	110,000
Malawi	91,000

Source: UNAIDS, 2006 Report..., Annex 2: HIV/AIDS Estimates and Data, 2005 and 2003, Table 1, Estimated Number of People Living with HIV.

Orphans

The number of orphans in Africa is large but appears to be decreasing slightly. There were an estimated 11.4 million orphans due to AIDS in Africa in 2007. In late 2005, according to UNAIDS, there were about 12 million AIDS orphans (children 17 and under who had lost one or both parents to HIV) in Africa, up from about 10.2 million in late 2003, when AIDS orphans comprised in the range of 28% of all orphans in the region. The apparent decrease raises the possibility that a 2004 U.N. study that projected that by 2010 their number would rise to 18.4 million, or 36.8% of all orphans on the continent, may have underestimated the impact of factors leading to a slight decline in HIV prevalence trends.[10]

[9] CRS calculation based on UNAIDS global child total and African proportion thereof.

[10] UNAIDS/UNICEF/U.S. Agency for International Development, *Children on the Brink*, July 2004. Estimates vary. Some earlier estimates had put the number as high as 12.3 million. In November 2003, UNICEF predicted that 20 million children would be orphaned by AIDS by 2010 and that in a dozen countries orphans from all causes would make up 15% to over 25% of children under 15; see UNICEF, *Africa's Orphaned and Vulnerable Generations: Children Affected by AIDS*, 2006..

Because of AIDS-related social stigma, HIV-positive orphans are at high risk for malnourishment, abuse, and denial of education.[11] UNICEF has recommended that the capacity of families and communities to protect and care for orphans be strengthened, that social and state protection services be provided for orphans and vulnerable children (OVCs), and that public education about HIV-affected children HIV-affected[12] be increased. In October 2005, Human Rights Watch alleged in a report that African governments have largely not addressed the myriad barriers to education faced by AIDS-affected OVCs. P.L. 108-25 included sense of Congress language recommending that 10% of U.S. HIV/AIDS international assistance should fund services for orphans and vulnerable children.

The Assistance for Orphans and Other Vulnerable Children in Developing Countries Act of 2005 (P.L. 109-95) became law in November 2005. It authorizes U.S. assistance for basic care for orphans and vulnerable children in developing countries, including aid for community-based care, school food programs, education and employment training, psycho-social support, protection of inheritance rights, and AIDS care.

Table 4. Ten African Countries with the Largest Populations of AIDS-Orphaned Children as of late 2005

Country	Estimated Number of AIDS-Orphaned Children
South Africa	1,200,000
Kenya	1,100,000
Tanzania	1,100,000
Zimbabwe	1,100,000
Uganda	1,000,000
Nigeria	930,000
Zambia	710,000
Congo, Democratic Republic of	680,000
Malawi	550,000
Mozambique	510,000

Source: UNAIDS, 2006 Report..., Annex 2: HIV/AIDS Estimates and Data, 2005 and 2003, Table 1, Estimated Number of People Living with HIV.

Explaining the African Epidemic

AIDS experts attribute Africa's AIDS epidemic to a variety of economic and social factors, but place primary blame on the region's poverty, which has deprived Africa of effective systems of health information, health education, and health care. As a result, Africans suffer from high rates of untreated sexually-transmitted infections other than AIDS, increasing their susceptibility to HIV. African health systems often have limited capabilities for AIDS prevention work, and HIV

[11] J. Cohen, "Human Rights Implications of AIDS-affected Children's Unequal Access to Education," presentation at XVI Int. AIDS Conf., August 2006.

[12] In this report, the term "AIDS-affected" is used to refer to persons or families who are HIV-positive themselves or who directly experience the effects of being related to, dependent on, or responsible for one or more HIV-affected family members or guardians.

counseling and testing are difficult for many Africans to obtain. Until very recently, AIDS treatment was generally available only to elites.

Poverty forces large numbers of African men to migrate long distances in search of work, and while away from home they may have multiple sex partners, increasing their risk of infection. Some of these partners may be women who engage in commercial or "transactional" sex because of poverty, which makes them highly vulnerable to infection. Migrant workers may carry the infection back to their wives when they return home. Long-distance truck and public transport drivers are also seen as key agents in the spread of HIV.

Women and girls are disproportionately affected by AIDS in Africa. According to UNAIDS officials and publications, among other sources, contraction of HIV by girls from older men is a significant factor contributing to higher rates of infection among young women than in young men. While older men are more likely than young men to be HIV-positive, girls in impoverished contexts often view relationships with older men as vital opportunities for achieving financial, material, and social security. According to surveys, in many African countries, large numbers of young women lack comprehensive knowledge of HIV transmission.

Many believe that female infection rates would be lower if women's rights were more widely respected in Africa, and if women exercised more political and socio-economic power. Human Rights Watch (HRW) and other organizations have reported that domestic violence targeting women in some African countries has made these women more vulnerable to HIV infection, in part by depriving them of the power to negotiate condom use.[13] For this reason, some policy advocates see a need for greater support for fidelity campaigns primarily aimed at African men. Women also lack or have weak property rights in many African countries, making their homes or property vulnerable to seizure by relatives when women suffer the loss of their spouses due to AIDS.

Social and Economic Consequences

AIDS is having severe negative social and economic consequences in Africa, and these effects are expected to continue for many years, as suggested by a January 2000 Central Intelligence Agency National Intelligence Estimate on the infectious disease threats:

> At least some of the hardest-hit countries, initially in Africa and later in other regions, will face a demographic catastrophe as HIV/AIDS and associated diseases reduce human life expectancy dramatically and kill up to a quarter of their populations over the period of this Estimate.[14] This will further impoverish the poor, and often the middle class, and produce a huge and impoverished orphan cohort unable to cope and vulnerable to exploitation and radicalization (CIA, *The Global Infectious Disease Threat and Its Implications for the United States,* http://www.cia.gov/).

The estimate predicted that AIDS would generate increased political instability and slow democratic development. The World Bank (*Intensifying Action Against HIV/AIDS in Africa*, September 1999) has reached similar conclusions with respect to Africa's economic future:

> The illness and impending death of up to 25% of all adults in some countries will have an enormous impact on national productivity and earnings. Labor productivity is likely to drop, the benefits of education will be lost, and resources that would have been used for investments will be used for health care, orphan care, and funerals. Savings rates will

[13] See, e.g., Human Rights Watch (HRW), *A Dose of Reality Women's Rights in the Fight against HIV/AIDS*, March 2005, among other HRW statements and reports.

[14] A period of 20 years, i.e., 2000 to 2020.

decline, and the loss of human capital will affect production and the quality of life for years to come.

In the most severely affected countries, sharp drops in life expectancy are occurring, reversing major gains achieved in recent decades. According to UNAIDS, average life expectancy in Africa is now 47 years due to AIDS, whereas it would have been 62 years in its absence. A March 2004 U.S. Census Bureau report predicted absolute population declines by 2010 in South Africa, Botswana, and three other African countries due to AIDS.[15]

Rural Livelihoods

Studies show that AIDS has devastating effects on rural families. The father is often the first to fall ill, and when this occurs, farm tools and animals may be sold to pay for his care, frequently leading to rapid impoverishment of often already poor families. Should the mother also become ill, children may be forced to shoulder responsibility for the full time care of their parents, farmsteads, and often of themselves, despite their frequently limited knowledge about how to carry out farm and domestic work. Many also become orphans. In 2001, the U.N. Food and Agriculture Organization reported that AIDS had killed about 7 million agricultural workers in 25 hard-hit countries in Africa and would likely cause 16 million more to die by 2020. In 10 of the most affected countries, labor force losses of between 10% to 26% were forecast. (FAO, *HIV/AIDS, Food Security, and Rural Livelihoods*, 2001). Some experts attribute serious food shortages in southern Africa in 2002 and 2003 to AIDS-related production losses.[16] In February 2003, in separate testimony before the Senate Foreign Relations Committee and the House International Relations Committee, World Food Program (WFP) Executive Director James Morris said that AIDS was a central cause of the famine. In June 2004, Morris said that southern Africa was in a "death spiral" due to the effects of the AIDS pandemic, including the loss of human capacity and the devastation of rural areas, with resulting negative consequences for food security (WFP press release). The FAO supports many programs to alleviate the diverse threats that AIDS poses to agricultural production and food security.[17]

Workforce Depletion

AIDS is blamed, in part, for increasing shortages of skilled workers and teachers in several countries and is claiming many African lives at middle and upper levels of public and private sector management. Although unemployment is generally high in Africa, trained personnel are not readily replaced. Dr. Peter Piot, UNAIDS Executive Director, told a June 2, 2005, special U.N. General Assembly meeting on AIDS that by 2006, 11 African countries will have lost 10% of their workforce to the disease. A May 2002 World Bank study, *Education and HIV/AIDS: A Window of Hope,* reported that over 30% of teachers were HIV positive in parts of Malawi and Uganda, 20% in Zambia, and 12% in South Africa. Reports from diverse sources have since continued to mirror such findings.

Security

AIDS may have serious security consequences for much of Africa, since HIV infection rates in many militaries are reportedly high. Domestic political stability could also be threatened in

[15] Karen A. Stanecki, *The AIDS Pandemic in the 21st Century*, U.S. Census Bureau, March 2004.

[16] For example, see FAO, HIV/AIDS and the Food Crisis in Sub-Saharan Africa, ARC/04/INF/8, March 2004.

[17] See http://www.fao.org/hivaids.

African countries if the security forces become unable to perform their duties due to AIDS. Peacekeeping is also at risk, because African soldiers are expected to play an important peacekeeping role in Africa in the years ahead. The infection rate in South Africa has been estimated at 23%, with higher rates reported for units based in heavily infected KwaZulu-Natal province. Some Southern African militaries, however, are pursuing efforts to treat and counter an increase in AIDS infections.[18]

Responses to the AIDS Epidemic

Donor governments, non-governmental organizations (NGOs) working in Africa, and African governments have responded to the AIDS epidemic primarily by attempting to reduce the number of new HIV infections through prevention programs, and to some degree, by trying to ameliorate the damage done by AIDS to families, societies, and economies. A third response, treatment of AIDS sufferers with antiretroviral drugs (ARVs) that can result in long-term survival, is increasing rapidly in some African contexts, as treatment and drug distribution efforts expand, but ARVs remain inaccessible to the vast majority of those in need of them in Africa (See below, "AIDS Treatment Issues").

Anti-AIDS programs and projects typically provide information on how HIV is spread and on how it can be avoided through the media, posters, lectures, and skits. Some success has been claimed for these efforts in persuading youth to delay the age of "sexual debut" and to remain faithful to a single partner. The Bush Administration advocates an expansion of prevention programs focusing on abstinence until marriage and marital faithfulness as effective means of slowing the spread of HIV, although some critics maintain that this may be unrealistic in social environments characterized by poverty and lack of education. Some also question whether such approaches can benefit poor married women in Africa, who have little power to refuse the sexual demands of their husbands, whether infected or not—or, in some cases, to control their extra-marital activities. They are also often unable to refuse spousal decisions to take more than one wife, given that polygamous marriage is common and deeply embedded in many African societies. In January 2006, First Lady Laura Bush defended abstinence approaches, saying that she had "always been a little bit irritated by criticism of abstinence, because abstinence is absolutely, 100 percent effective in fighting a sexually transmittable disease." She added that, "In many countries where girls feel obligated to comply with the wishes of men, girls need to know that abstinence is a choice."[19]

Donor-sponsored voluntary counseling and testing (VCT) programs, where available, enable African men and women to learn their HIV status. In Botswana, HIV tests are now offered as a routine part of medical visits, and many experts are urging that this be done continent-wide. AIDS awareness programs are found in many African schools and, increasingly, in the workplace, where employers are recognizing their interest in reducing infection rates among their employees. Many projects seek to make condoms readily available and to provide instruction in condom use. Several projects have had success in reducing mother-to-child transmission by administering the anti-HIV drug AZT or Nevirapine, before and during birth, and during infant nursing. Nevirapine, however, has been the subject of controversy. In December 2004, the Associated Press reported that important reporting flaws, including non-disclosure of bad drug reactions, had been found in a study of Nevirapine conducted in Uganda under U.S. National Institutes of Health (NIH) sponsorship. The allegations sparked criticism in Africa, including from the South Africa's ruling

[18] UN Integrated Regional Information Networks (IRIN), "Southern Africa: Military Taking Control of Aids," March 10, 2006.

[19] Deborah Orin, "Laura Defends Sex Abstinence," *New York Post*, January 16, 2006.

Africa National Congress, which in December 2004 charged that top U.S. officials had "entered into a conspiracy with a pharmaceutical company to tell lies and promote the sales of Nevirapine in Africa..." In response, NIH asserted in a statement that "single-dose Nevirapine is a safe and effective drug for preventing mother to infant transmission of HIV." It termed as "absolutely false" any implication of thousands of adverse reactions in the Uganda study. AIDS activists and others worried that the controversy would discourage use of the drug, often the only available means of preventing mother to child transmission (MTCT) of HIV. A later National Academies' Institute of Medicine assessment found that the Uganda study was valid and that Nevirapine should continue to be used for MTCT.

Church groups and humanitarian organizations have helped Africa deal with the consequences of AIDS by setting up care and education programs for orphans. Public-private partnerships have also become an important vehicle for responding to the African AIDS pandemic. The Bill and Melinda Gates Foundation has been a major supporter of AIDS vaccine research and diverse AIDS programs pursued in cooperation with African governments and donors. The Rockefeller Foundation, working with UNAIDS and others, has sponsored programs to improve AIDS care in Africa, and both Bristol-Myers Squibb and Merck and Company, together with the Gates Foundation and the Harvard AIDS Institute, have undertaken programs with the Botswana government aimed at improving the country's health infrastructure and providing AIDS treatment to all who need it. In Uganda, Pfizer and the Pfizer Foundation fund Uganda's AIDS Support Organization and the Infectious Diseases Institute. It has trained 250 AIDS specialists annually, many slated to work in rural areas. In January 2006, the Swiss drug firm Roche said it plans to help African firms produce generic versions of its World Health Organization (WHO)-endorsed ARV, Saquinavir, under its Technology Transfer Initiative.[20]

The Global Fund to Fight AIDS, Tuberculosis, and Malaria, created in January 2002, commits about 60% of its grant funds to Africa, and about 60% of its grants worldwide go toward fighting AIDS.[21] UNAIDS maintains that significant AIDS funding gaps remain. According to one study, $14.9 billion was needed in 2006 to fight HIV/AIDS in low- and middle-income countries globally in 2006, whereas $8.9 billion was likely to be provided. The funding gap is projected to rise in future years, according to a June 2005 UNAIDS report.

Leadership Reaction in South Africa and Elsewhere

Many observers believe that the spread of AIDS in Africa could have been slowed if African leaders had been more engaged and outspoken at earlier stages of the epidemic. President Thabo Mbeki of South Africa has come in for particular criticism on this score. In April 2000, he wrote to then-President Clinton and other heads of state defending dissident scientists who maintain that AIDS is not caused by the HIV virus. In March 2001, Mbeki rejected appeals that the national assembly declare the AIDS pandemic a national emergency. Under mounting domestic and international pressure, the South African government seemed to modify its position significantly when the government announced after an April 2002 cabinet meeting that it would triple the national AIDS budget. When an ARV drug treatment program had not been launched by March 2003, however, the South African Treatment Action Campaign (TAC) launched a civil disobedience campaign. In August 2003, the South African cabinet instructed the health ministry to develop a plan to provide antiretroviral therapy nationwide, but by March 2004, TAC was

[20] Roche, "Roche offers help to local manufacturers to produce HIV medicine for sub-Saharan Africa and Least Developed Countries," January 12, 2006.

[21] For further information, see CRS Report RL31712, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background*, by Tiaji Salaam-Blyther.

threatening a lawsuit unless the program was actually begun. Finally, in April 2004, the government began offering treatment at five hospitals in populous, highly urban Gauteng province. In its 2006 National Budget Review, the government reported that 112,000 patients were "enrolled" for ARV therapy by December 2005 but did not specify the number in publicly funded programs. Estimates of total numbers in treatment and proportions under public and private care vary widely. In February 2005, TAC estimated that about 38% of 70,000 patients under ARV therapy were in public programs; the remainder were receiving private care. Another activist group, the International Treatment Preparedness Coalition, reported in November 2005 that of 150,000 persons receiving treatment in August 2005, 50%-53% were in public programs. In May 2006, UNAIDS reported that about 190,000 South Africans were receiving ARV treatment, but that nearly 1 million, or more than 80% of those in need of ARV therapy, were not receiving it in 2005.

The delays in South Africa's response to the pandemic have been costly, many experts believe. South African Health Department data have shown HIV infection rates continuing to rise, though according to UNAIDS figures, rates were similar between 2003 and 2005, though they rose among pregnant women. About 29.5% of pregnant women in South Africa were found to be HIV positive in 2004, up from 27.9% in 2003 and 26.5% in 2002. The Health Department estimates that there were 5.6 million HIV-positive South Africans in 2004. A September 2004 report by the Bureau of Market Research at the University of South Africa predicted that AIDS-related deaths would exceed 500,000 yearly from 2007 to 2011. A lower rate of growth in infections reportedly may be under way; a November 2005 South African Human Sciences Research Council data release stated that South Africa's AIDS epidemic may be "leveling off." Some critics of the government have accused government leaders of being "AIDS denialists" and of curtailing the rate of scaling up access to ARVs because of some officials' reported doubts about ARV use. South Africa's Health Minister Manto Tshabalala Msimang has reportedly repeatedly questioned the effectiveness of ARV drugs and has asserted that healthy diets and special foods, such as raw garlic and lemon peel, can offer protection from the disease (*Mail and Guardian Online*, May 5, 2005). Former President Nelson Mandela, seeking to combat the stigma associated with AIDS, announced in January 2005, that his son, Makgatho, had died of AIDS.

In the rest of Africa, many heads of state, including the presidents of Uganda, Botswana, Nigeria, and several other countries, are taking major roles in fighting the epidemic. Several regional AIDS initiatives have been launched. For example, in August 2003, the Southern African Development Community (SADC) agreed to an AIDS strategic framework, including the creation of a regional fund to fight the disease. The New Partnership for Africa's Development (NEPAD), in partnership with the African Union, UNAIDS, and other multinational entities, has formulated a range of strategies for countering AIDS, though the products of these efforts appear to be limited at present.

Uganda's president, Yoweri Museveni, has long been recognized for leading a successful prevention campaign against AIDS in Uganda, where the ABC (Abstinence, Be Faithful, or Use Condoms) transmission prevention program has won wide praise. A Senate Foreign Relations Africa Subcommittee hearing in May 2003, focused on "Fighting AIDS in Uganda: What Went Right." Dr. Anne Peterson, Assistant Administrator for Global Health at the U.S. Agency for International Development (USAID), testified that the "Uganda success story is about prevention." She said that successes had been recorded in promoting abstinence and faithfulness to partners, while increased condom use in recent years had also contributed to prevalence declines. Sophia Mukasa Monico, a member of the Global Health Council and a former AIDS worker in Uganda, testified that all three program elements are necessary for prevention to work but noted that the Ugandan epidemic was still "raging" and that much work to counter it remained to be done.

In February 2005, Johns Hopkins and Columbia University researchers released a study of Rakai District, Uganda reporting that a local HIV prevalence decline was due to condom use and the deaths of infected people.[22] Abstinence and monogamy appeared not to be increasing. Some saw this as evidence that sexual behavior change programs were less important than expected. Others argued that behavior had likely changed substantially prior to the study. In July 2005, First Lady Laura Bush, speaking in South Africa during a trip to Africa that included visits with AIDS patients and orphans, said that the Uganda-developed ABC model was "successful" and added that "ABC stands for Abstinence, Be faithful, and correct and consistent use of Condoms." Conflicting reports appeared in late summer 2005 regarding a shortage of condoms in Uganda for preventing HIV. Some AIDS activists and others blamed the alleged shortage on an emphasis on abstinence in U.S.-funded AIDS prevention programs and a change in policy by Ugandan government officials, who denied a shortage existed. A U.S. official attributed the problem to a shipment of defective condoms.

AIDS Antiretroviral Treatment Issues

Access by the poor to antiretroviral drugs (ARVs) has been perhaps the most contentious issue surrounding the response to Africa's AIDS epidemic. ARVs are used in a treatment regime generally dubbed Antiretroviral Therapy (ART). Three or more ARVs are often used in combination to halt the genetic replication of the HIV virus at different stages in its life cycle; this treatment regime is known as Highly Active ART (HAART). ART can enable AIDS victims to live relatively normal lives and permit long-term survival rather than early death. ARVs have proven highly effective in developed countries, including the United States, where AIDS, the eighth-ranked cause of death in 1996, was no longer among the top 15 causes by 1998, according to the U.S. Health and Human Services Department.

The high cost of ARVs has proved a key obstacle to large scaling-up of access to ART in Africa, where most patients are poor and lack health insurance. Once estimated at between $10,000 and $15,000 per person per year, ART costs have dropped dramatically in recent years. In May 2000, five major pharmaceutical companies agreed to negotiate sharp reductions in the price of AIDS drugs sold in Africa. UNAIDS launched a program in cooperation with pharmaceutical firms to boost treatment access. In June 2001, it reported that 10 African countries had reached agreement with drug makers that would significantly reduce prices in exchange for health infrastructure improvements to assure that ARVs are administered safely. Initiatives to expand ARV availability continued, and treatment became a major focus of Global Fund and the President's Emergency Plan for AIDS Relief (PEPFAR) programs (see below). In December 2003, the WHO formally launched its "3 by 5" campaign to treat 3 million AIDS patients in poor countries by 2005, with resources from the Global Fund and donors. Leaders of the G8, concluding their summit in Scotland in July 2005, promised "a package for HIV prevention, treatment, and care," with the goal of providing "universal access to treatment for all those who need it by 2010."

In October 2003, former President Bill Clinton announced that his Clinton Foundation HIV/AIDS Initiative (CHAI) had organized a program to provide generic three-drug ARV treatment in Africa and the Caribbean for about $.38 per day per AIDS patient using drugs manufactured in India and South Africa with backing from private donors and some donor governments, among other sources. In April 2004, the Clinton Foundation announced an agreement with UNICEF, the World Bank, and the Global Fund to expand the program to more than 100 developing countries. In April 2005, CHAI announced a pediatric AIDS program intended to put 10,000 HIV-positive

[22] See Maria Wawer, R. Gray et al., "Declines in HIV Prevalence in Uganda: Not as Simple as ABC," *12th Conference on Retroviruses and Opportunistic Infections*, Boston.

children on ARV therapy in at least 10 countries in 2005, doubling the number of children in treatment. On January 12, 2006, former President Bill Clinton announced that CHAI had negotiated new agreements to lower prices of WHO-evaluated HIV tests by 50% and those of two antiretroviral drugs by 30%. These will be made available to the CHAI Procurement Consortium, a group of countries eligible to make purchases under CHAI agreements. It includes 50 developing countries. CHAI also helps countries to implement large-scale, integrated care, treatment, and prevention programs. Partner governments take the lead; CHAI provides technical aid, mobilizes human and financial resources, and promotes sharing of best practices.

As a result of ARV scaling up efforts, UNAIDS reported in May 2006 an estimated 810,000 or about 17% of a total of about 4.7 million Africans in need of ART (72% of those in need worldwide) were receiving it by late 2005.[23] This number was up from about 500,000 in June 2005 and up from about 150,000 a year earlier.[24] Despite such successes, UNAIDS and WHO had reported in December 2005 that progress in expanding treatment and care in Africa was uneven across the region and within countries. In general, according to a report by UNAIDS in December 2005, there was "extensive unmet need" in most of Africa. By late 2005, UNAIDS reported, coverage levels of 45% or greater had been achieved in countries such as Botswana, Senegal, Uganda, and Namibia. In slightly under a third of African countries, coverage rates ranged between 10% and 31%, while in 18 countries, rates were below 10%. About 23.5% of all those receiving ART resided in South Africa.[25] ART access in rural areas, where the majority of the population in many African countries—and the bulk of AIDS patients—live, is generally much poorer than in urban areas.

Whether African countries are ready to "absorb" (effectively use) sharp increases in treatment funding has been another issue. AIDS activists believe that millions of Africans could quickly be given access to AIDS drugs. Others maintain that African supply channels cannot make the drugs consistently available to millions of patients and that regular monitoring of patients by medical personnel is not possible in much of Africa. Monitoring is necessary, they maintain, to deal with side effects and to adjust medications if drug resistance emerges. Many fear that if the drugs are taken irregularly, resistant HIV strains will emerge that could cause untreatable infections globally. It has been reported, however, that many African patients follow their AIDS therapy regimens equally or more consistently than many American patients. The creation of once-daily combined ARV tablets is widely seen as a likely way to facilitate access to and adherence to ARV therapy, notably in impoverished settings. In January 2006, the multinational drug firms Gilead and Bristol-Myers Squibb announced that they had jointly developed such a tablet for certain drugs. For some, the correct response to weaknesses in Africa's basic health care systems is to devote resources to strengthening those systems. News reports indicate that scaling up of treatment is often stymied by African government administrative inefficiencies and by donor limitations on what their funds may be used to purchase.

Botswana's President Festus Mogae told a November 2003 meeting, held in Washington by the Center for Strategic and International Studies, that the widely-praised treatment program in his country is being hampered by a "brain drain" of health personnel. African physicians, nurses, and technicians are often hired by foreign governments, international organizations, and non-governmental organizations outside of Africa, or migrate to developed countries to take advantage of generally better job opportunities in such countries. The health minister of Mozambique, which has launched a pilot ARV drug treatment program, said in May 2004 that the

[23] UNAIDS, *2006 Report on the Global AIDS Epidemic.*

[24] UNAIDS/WHO, *AIDS Epidemic Update*, December 2005.

[25] In late 2005, 190,000 of a total of 810,000 ART patients were South African; see UNAIDS, *2006 Report*.

country was unable to launch a nationwide program because of serious shortages of staff and equipment. WHO and other organizations have reported that Africa has the lowest ratio of health workers to population of any region. WHO reported that in 2005, there were 2.3 health workers (of all kinds) per 1,000 persons on average across Africa. It also reported that 36 of 46 (78%) African countries surveyed had critical shortages of doctors, nurses and midwives, and would have to increase such professionals by 139% in order to adequately meet current needs.[26]

AIDS activists have urged that African governments issue "compulsory licenses" to allow the manufacture or importation of inexpensive copies of patented AIDS drugs ("generic drugs"). In November 2001, a ministerial-level meeting of the World Trade Organization (WTO) in Doha, Qatar, approved a declaration stating that the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) should be implemented in a manner supportive of promoting access to medicines for all. The declaration affirmed the right of countries to issue compulsory licenses and gave the least-developed countries until 2016 to implement TRIPS. The question of whether countries manufacturing generic drugs, such as India or Thailand, should be permitted to export to poor countries was left for further negotiation through a committee known as the Council for TRIPS.

Although the Doha declaration drew broad praise, some AIDS activists criticized it for not permitting imports of generics. Some in the pharmaceutical industry, on the other hand, expressed concern that the declaration was too permissive and might reduce profits that, they argued, fund medical research. Others, however, maintained that the declaration would have little practical impact; in their view, poverty, rather than patents, is the key obstacle to drug access in Africa.[27] In August 2003, the WTO reached agreement on a plan to allow poor countries to import generic copies of essential drugs, but the debate over access to ARVs in Africa seems likely to continue. This agreement was ratified in December 2005 at the Hong Kong WTO ministerial meeting. In March 2005, India's parliament passed patent legislation expected to sharply raise prices in Africa and elsewhere for Indian-manufactured generic copies of newly discovered AIDS medications. Cheap generic copies of existing drugs can still be sold, although sellers will have to pay licensing fees to patent holders.

Effectiveness of the Response

The response to AIDS in Africa has had some successes, most notably in Uganda, where the rate of infection among pregnant women in urban areas fell from 29.5% in 1992 to 5% in 2001 (UNAIDS, *AIDS Epidemic Update, December 2002)*.[28] In most African countries, prevalence rates in 2005 were roughly similar to those in 2003, with only marginal increases or decreases. UNAIDS findings have indicated that sexual behavior patterns among young urbanites in some other countries may be changing in ways that combat the spread of HIV, although increases among populations continue in many African cities. Despite some success stories, however, the

[26] WHO, "Chapter 1: Health Workers: A Global Profile," *The World Health Report 2006 - Working Together for Health,* 2006. The study reflects findings from a number of other studies by other organizations on healthcare capacity in Africa. See, for instance, papers published by the now defunct Harvard-based Joint Learning Initiative on Human Resources for Health and Development on human resources for health in Africa: http://www.globalhealthtrust.org/Publication.htm#wg4.

[27] See Amir Attaran and Lee Gillespie-White, "Do Patents for Anti-retroviral Drugs Constrain Access to AIDS Treatment in Africa?," *Journal of the American Medical Association,* October 17, 2001.

[28] However, while Uganda's adult prevalence nationwide had been reported as having dropped to 4.1% in 2003, compared with 5.1% in 2001, recent statistical reassessments indicate that Uganda's actual 2003 prevalence rate was 6.8%, and that its late 2005 rate was 6.7%. This finding appears to indicate that Uganda's infection rate has generally stabilized, but not declined quite as much as experts had previously believed. See UNAIDS, *2006 Report ...*, pp. 10-11, *op. cit.*

number of infected people in Africa continues to grow, in part due to general population increases. The estimated number of HIV-positive persons in Africa increased from 21.6 million in 2003 to 22.5 million in 2007.

Experts contend that there are multiple social barriers to a more effective AIDS response in Africa, such as cultural norms that make it difficult for many government, religious, and community leaders to acknowledge or discuss sexual matters, including sex practices, prostitution, and the use of condoms. However, experts continue to advocate AIDS awareness and public education and outreach efforts as essential components of the response to the epidemic. Indeed, there is strong support for an intensification of such efforts, as well as adaptations to make them more effective.

The lives of HIV patients could be significantly prolonged and improved, some maintain, if more were done to identify and treat the opportunistic infections, notably tuberculosis (TB), that often accompany AIDS. Millions of Africans suffer dual HIV-TB infections, and their combined effects dramatically shorten life. TB can be cured by multi-month, combined drug treatments, even in HIV-infected patients. However, according to the WHO, Africans often delay seeking treatment for TB or do not complete their drug regimens, contributing to high death rates among those with dual infections. UNAIDS and the WHO have recommended that Africans infected with HIV be treated with an antibiotic/sulfa drug combination known as cotrimoxazole in order to prevent opportunistic infections. Studies indicate that the drug could reduce AIDS death rates at a cost of between $8 and $17 per year per patient. The Pfizer Corporation donates the anti-fungal Diflucan (fluconazole), used to treat AIDS-related opportunistic infections (such as cryptococcal meningitis, a dangerous brain inflammation) to patients in 18 African countries through the Pfizer Diflucan Partnership Program (DPP). DPP is a public-private effort in collaboration with health ministries, local clinics, and non-governmental organizations.

Further information on the response to AIDS in Africa and elsewhere may be found at the following websites.

- Centers for Disease Control (CDC): http://www.cdc.gov/nchstp/od/nchstp.html
- Global Fund to Fight AIDS, Tuberculosis & Malaria: http://www.theglobalfund.org/en
- International AIDS Vaccine Initiative: http://www.iavi.org
- International Association of Physicians in AIDS Care: http://www.iapac.org
- Kaiser Network: http://www.kaisernetwork.org; click “HIV Daily Reports”
- UNAIDS: http://www.unaids.org/en/default.asp
- USAID: http://www.usaid.gov/our_work/global_health/aids/index.html
- World Bank: http://www.worldbank.org; click “Topics >> AIDS”

U.S. Policy

U.S. concern over AIDS in Africa began to mount during the 1980s, as the severity of the epidemic became apparent. In 1987, Congress earmarked FY1988 funds for fighting AIDS worldwide, and House appropriators noted that in Africa, AIDS had the potential for “undermining all development efforts” to date (H.Rept. 100-283). In subsequent years, Congress supported AIDS spending at or above levels requested by the executive branch, either through earmarks or report language. Nevertheless, a widely discussed July 2000 *Washington Post* article called into question the adequacy and timeliness of the early U.S. response to the HIV/AIDS

threat in Africa (Barton Gellman, "The Global Response to AIDS in Africa: World Shunned Signs of Coming Plague," *Washington Post,* July 5, 2000).

Clinton Administration

As the severity of the epidemic continued to deepen, many of those concerned for Africa's future, both inside and outside government, came to feel that more should be done. In July 1999, the Clinton Administration proposed $100 million in additional spending for a global LIFE (Leadership and Investment in Fighting an Epidemic) AIDS initiative, with a heavy focus on Africa.[29] Funds approved during the FY2000 appropriations process supported most of this initiative, and funded the engagement of the Department of Health and Human Services (HHS), the Departments of Labor (DoL), and the Department of Defense (DoD), in addition to USAID, in the global fight against HIV/AIDS. On June 27, 2000, the Peace Corps announced that all volunteers serving in Africa would be trained as AIDS educators. USAID asserted in 2001 that its support of multilateral efforts and direct sponsorship of regional and bilateral programs had made it the global leader in the international response to AIDS since 1986, when it initiated AIDS prevention programs in developing countries (USAID, *Leading the Way: USAID Responds to HIV/AIDS,* September 2001). USAID had sponsored AIDS education programs; trained AIDS educators, counselors, and clinicians; supported condom distribution; and sponsored AIDS research. USAID claimed several successes in Africa. These included helping to reduce HIV prevalence among young Ugandans; preventing an outbreak of the epidemic in Senegal; reducing the frequency of sexually transmitted infections in several African countries; sharply increasing condom availability in Kenya and elsewhere; assisting children orphaned by AIDS; and sponsoring the development of useful new technologies, including the female condom.

Bush Administration

Combating the AIDS pandemic in Africa has been an important Bush Administration foreign assistance program goal. In May 2001, President Bush made the "founding pledge" of $200 million to the Global Fund, and in June 2002, he announced a $500 million International Mother and Child HIV Prevention Initiative to support efforts to prevent mother-to-child AIDS transmission. Eight African countries were named as beneficiaries. In his January 2003 State of the Union address, President Bush announced the launching of the President's Emergency Plan for AIDS Relief (PEPFAR), pledging $15 billion for fiscal years 2004 through 2008, including $10 billion in "new money," that is, spending in addition to then current levels. In July 2003, President Bush made AIDS a special focus during a five-day trip to Africa. On July 8, in Senegal, the President told Africans, "we will join with you in turning the tide against AIDS in Africa." On July 10, speaking in Botswana, the President said that, "this is the deadliest enemy Africa has ever faced, and you will not face this epidemic alone." In September 2003, then Secretary of State Colin Powell told a U.N. General Assembly special session on AIDS that the epidemic was "more devastating than any terrorist attack" and that the United States would "remain at the forefront" of efforts to combat the epidemic.

PEPFAR was authorized by P.L. 108-25, the United States Leadership Against Global HIV/AIDS, Tuberculosis, and Malaria Act of 2003, signed into law by President Bush on May 27, 2003. Its implementation has resulted in major spending increases for HIV/AIDS prevention, care, and treatment in 15 "focus countries," 12 in Africa (Botswana, Cote d'Ivoire, Ethiopia, Kenya, Mozambique, Namibia, Nigeria, Rwanda, South Africa, Tanzania, Uganda, and Zambia).

[29] *Leadership and Investment in Fighting an Epidemic (LIFE), A Global AIDS Initiative,* http://clinton4.nara.gov/media/pdf/2pager.pdf.

PEPFAR funds are provided through the Global HIV/AIDS Initiative (GHAI), headquartered at the State Department. The GHAI is headed by a U.S. Global AIDS Coordinator, who coordinates GHAI programs in focus countries and other international AIDS programs implemented by USAID and other agencies. Permanent incumbents in the Global AIDS Coordinator position are nominated by the President and confirmed by the Senate. The first Global AIDS Coordinator was Randall Tobias, the former Administrator of USAID and the Director of U.S. Foreign Assistance. Ambassador Mark Dybul is now the U.S. Global AIDS Coordinator.

In February 2004, the State Department issued a report http://www.state.gov/s/gac/rl/or/c11652.htm which provided details on how PEPFAR would be implemented, and proposed to use initial PEPFAR funds to support several "public-private partnership" treatment programs. PEPFAR aims to prevent 7 million new infections globally, provide ARV drugs for 2 million infected people, and provide care for 10 million infected people, including orphans. The Administration has submitted to Congress two subsequent annual PEPFAR reports that describe the status of PEPFAR program policy and program administration, as well as a number of other related reports.[30]

The Office of the Global AIDS Coordinator (OGAC) at the State Department administers the bulk of U.S. AIDS assistance to Africa. PEPFAR was enacted, in part, to simplify the international AIDS budget, enhance transparency, and stress the President's interest in fighting AIDS and his backing for what the State Department reports is "the largest commitment ever by a single nation for an international health initiative."[31] Prior to PEPFAR, the principal channels for HIV/AIDS assistance to Africa were USAID and the Global AIDS Program (GAP) of the Centers for Disease Control (CDC) in the Health and Human Services Department. Most USAID spending on AIDS in Africa is through the Child Survival and Health Programs Fund. Limited amounts are provided through other accounts, such as multi-functional Economic Support Fund, Peace Corps, and Migration and Refugee Assistance. The Department of Defense (DoD) has undertaken an HIV/AIDS Prevention Program, primarily with African armed forces and administered by the Naval Health Research Center in San Diego. It also focuses on education and creation of policy responses. As in other recent years, the Administration did not request funding for the program in FY2007. In FY2006, Congress continued to support it by appropriating $5.5 million (of which $3.2 million went to Africa). Foreign Military Financing (FMF) funds are also used to support this initiative. A Department of Labor (DOL) program in the past supported AIDS education in the workplace in several African countries, but was not funded in FY2006. Funds for these DOL efforts were not requested in FY2007.[32] Additional U.S. funds reach Africa indirectly through the AIDS programs of the United Nations (U.N.), the World Bank, and the Global Fund.

The scale of the response to the pandemic in Africa by the United States and other donors remains a subject of intense debate. The U.N. Special Envoy for HIV/AIDS in Africa, Stephen Lewis, has been a persistent critic, telling a September 2003 conference on AIDS in Africa that he was "enraged by the behavior of the rich powers" with respect to the epidemic. Many activist groups have made similar critiques. The singer Bono said he had a "good old row" with President Bush in a September 2003 meeting on the level of U.S. funding for fighting the international AIDS epidemic. Nonetheless, as noted above, others have argued that Africa's ability to absorb increased AIDS funding is limited and that health infrastructure will have to be expanded before new funds can be spent effectively.

[30] These reports are published online. See http://www.state.gov/s/gac/progress.

[31] See *Emergency Plan Basics*, http://www.state.gov/s/gac/plan.

[32] For details, see CRS Report RL33485, *U.S. International HIV/AIDS, Tuberculosis, and Malaria Spending: FY2004-FY2008*, by Tiaji Salaam-Blyther.

Many AIDS activists and others have praised the President's initiatives, notably the large levels of funding with which they have been supported. During the initial stages of its implementation, however, some critics maintained that PEPFAR was starting too slowly. Some have also characterized the program as too strongly unilateral and would like the United States to act in closer cooperation with other countries and donors, especially the Global Fund. Some have questioned whether PEPFAR will do enough to directly strengthen African health care institutions and capabilities for coping with AIDS over the long term, or whether the funds will go primarily to U.S.-based organizations. Some also urged increased appropriations, as some have continued to do. U.N. Secretary General Kofi Annan, during an interview at the July 2004 international AIDS conference in Bangkok, urged U.S. contributions of $1 billion annually for the Global Fund. Then-U.S. Global AIDS Coordinator Randall Tobias responded by stating that "It's not going to happen."[33] Annan asked the United States to show the same leadership in the AIDS struggle that it had shown in the war on terrorism. Then-U.S. State Department spokesman Richard Boucher rejected the implied criticism, saying that the Bush Administration had taken the AIDS crisis very seriously and that the $15 billion pledged to fight the epidemic over five years was an "enormous and significant amount."

More recently, some healthcare advocates have criticized what they see as a programmatic over-emphasis on efforts to promote the use of abstinence in the prevention of HIV, as opposed to the distribution and promotion of condoms for this purpose. Critics have charged that funding for PEPFAR abstinence programs, notably in Africa, has increasingly replaced other HIV prevention measures and that the United States is today sending fewer condoms abroad than in 1990 (Center for Health and Gender Equity, *Prevention Funding Under* [PEPFAR]*: Law, Policy and Interpretation*, December 2005). Some have cited as evidence for this contention, an April 2006 Government Accountability Office (GAO) report entitled *Global Health: Spending Requirement Presents Challenges for Allocating Prevention Funding under the President's Emergency Plan for AIDS Relief*.[34] The GAO found that guidance requiring that 33% of PEPFAR HIV prevention funds be spent on abstinence and faithfulness-focused programs had, in some cases, led to decreases in funding for certain other types of HIV prevention efforts. It also suggested that the guidance contained ambiguities that had created uncertainties among some country field teams about how to implement PEPFAR programs.

In March 2005, the Department of State released *Engendering Bold Leadership: The President's Emergency Plan for AIDS Relief*, the first annual report to Congress on the initiative. In an introductory letter to the report, Randall Tobias called PEPFAR "coordinated, accountable, and powerful." The report stated that 152,000 African patients were receiving AIDS treatment due to PEPFAR and that 119 million had been reached with mass media campaigns promoting abstinence and faithfulness, while 71 million had been reached with messages promoting other prevention measures, including the use of condoms. The President's second annual report to Congress stated that while 115.23 million condoms had been shipped to Focus Countries in 2001, 198.4 million had been shipped in 2005—a 72% increase.

Treatment

The *Financial Times* reported in April 2004 that the United States was withholding support from a program intended to treat 140,000 AIDS patients in Kenya with antiretrovirals because it would rely on a generic three-drug Fixed Dose Combination (FDC) pill. Many favor approval of FDCs,

[33] See CRS Report RL31712, *The Global Fund to Fight AIDS, Tuberculosis, and Malaria: Background*, by Tiaji Salaam-Blyther.

[34] The report is online: http://www.gao.gov/docsearch/abstract.php?rptno=GAO-06-395.

including copies of drugs made by different companies, on grounds that they are simpler to prescribe and need to be taken just once or twice a day. U.S. officials had expressed concerns that further study was needed to assure that their widespread or improper distribution did not contribute to the emergence of resistant HIV strains. The issue was submitted to a panel of experts instructed to report by mid-May 2004. Several Members of Congress later wrote to President Bush asking that the United States join an international consensus that generics are safe and essential for AIDS treatment. In May 2004, then-Health and Human Services Secretary Tommy Thompson announced that the U.S. Food and Drug Administration (FDA) was instituting an expedited process that could lead to the approval of the use of FDCs in PEPFAR-funded programs. Many hailed the news as a step forward in making cheaper and more reliable antiretroviral therapy available in Africa, but critics said it placed an unnecessary hurdle in the way of distributing such pills. They maintained that the United States should have relied on the approval process of the World Health Organization, which had already cleared such pills. By June 2005, the FDA had reportedly cleared seven generic antiretrovirals manufactured in South Africa and India. However, the *Boston Globe* reported on June 20 that four African countries, Nigeria, Uganda, Ethiopia, and Tanzania, were refusing to accept generic FDA-approved drugs for use in U.S.-funded treatment programs. Instead, the countries sought approval of the drugs by WHO.

U.S. Assistance

Under the President's FY2008 budget request, the 12 focus countries in Africa would receive $3.421 billion under the GHAI account. **Table 5** reports available information on recent U.S. spending levels on AIDS programs in Africa.

Table 5. U.S. Bilateral Assistance to Counter AIDS in Africa by Account, FY2004 - FY2008

($ millions)

Account	FY2004 Actual	FY2005 Actual	FY2006 Estimate	FY2007 Planned[a]	FY2008 Request [b]
CSH [c]	242.34	81.44	78.48	81.30	na
DHAPP/DOD[d]	1.87	3.18	2.34	na	na
ESF[e]	3.00	0.08	0.08	0.08	na
FMF[f]	1.49	1.98	1.98	1.60	1.60
GAP[g]	68.42	68.42	68.40	69.69	na
GHAI[h]	441.04	1,089.87	1,462.86	2,191.02	3,421.00
IDFA[i]	1.50	0	0	0	0
IMET[j]	0	0	0	0.01	na
PMTCT[k]	40.48	3.92	0	0	na
Totals	**800.14**	**1,248.90**	**1,614.14**	**2,343.69**	**3422.60**

a. Data reflect planned allocations. Levels subject to change following Administration consultation with Appropriations Committees on final authorized country and regional program levels.

b. Specific AIDS/Africa-related funding levels will not be set until final country and regional program levels are enacted into law following passage of general account level appropriations. The GHAI entry for FY2008 reflects the total requested funding level for Focus Countries only.

c. CSH: Child Survival and Health Programs Fund. Administered by USAID. ***Data Source:*** State Department data sheets on PEPFAR Africa funding by account provided to CRS on April 9, 2007 ("PEPFAR Datasheets" hereafter.)

d. DOD/DHAPP: Department of Defense HIV/AIDS Prevention Program administered by the Naval Health Research Center (NHRC) in San Diego. Provides technical assistance in the development and implementation of programs to counter HIV/AIDS, primarily in support of diagnosis, prevention education, counseling, behavior change communication, and treatment. ***Data Source:*** PEPFAR Datasheets and DHAPP-CRS communication, April 11, 2006. DOD/DHAPP provided CRS with figures that differed slightly from those reported by PEPFAR: $1.767 million in FY2004; $3.046 million in FY2005; and $2.493 million in FY2006. These minor differences are believed to be attributable to reprogramming of some country budgets during the 24 months for which a given year's funding is available.

e. ESF: Economic Support Fund (ESF). State Department strategic state stability and security-support account; programs implemented primarily by State Department and USAID. ***Data Source:*** PEPFAR Datasheets and USAID, "Country and Sector Detail," FY2007.

f. FMF: Foreign Military Financing, Military Health Affairs. State Department account; primarily used to provide goods in support of DHAPP programs. ***Data Source:*** State Department, *Congressional Budget Justification - Foreign Operations*, FY2008 and FY2007; and State Department, Political Military Affairs-CRS communication, April 11, 2007 with reference to planned FY2007 level.

g. GAP: Global AIDS Program. Implemented by the Centers for Disease Control and Prevention of the Department of Health and Human Services (HHS). Seeks to prevent HIV infection, improve care and support, and build capacity to counter HIV/AIDS internationally. ***Data Source:*** PEPFAR Datasheets.

h. GHAI: Global HIV/AIDS Initiative. State Department account used to fund diverse functional programs administered by multiple agencies, including USAID, HHS, DOD, the State Department, the Peace Corps, and the Labor Department. For examples, see State Department, "Table 3," *The U.S. President's Emergency Plan for AIDS Relief Fiscal Year 2006: Operational Plan* (August 2006 Update). ***Data Source:*** PEPFAR Datasheets and State Department, *Congressional Budget Justification - Foreign Operations*, FY2008.

i. IDFA: International Disaster and Famine Assistance. USAID-administered multi-purpose emergency assistance account. ***Data Source:*** USAID, "Country and Sector Detail," FY2004.

j. IMET: International Military Education and Training. State Department account used to fund professionalization and capacity-building of foreign militaries. ***Data Source:*** PEPFAR Datasheets.

k. I. PMTCT: Prevention of Mother-to-Child Transmission of HIV (PMTCT). HHS account used to fund PMTCT programs; administered primarily by USAID and HHS agencies. In some past years, the account included USAID funds. ***Data Source:*** PEPFAR Datasheets.

Note: Totals may differ slightly from sum of individual account entries due to rounding. Table omits data on HIV-related food aid, for which available official data is irregular and incomplete, and National Institutes of Health (NIH) Africa-related AIDS research.

Table 6. African Focus Countries: U.S. Bilateral Assistance to Counter AIDS, FY2004 - FY2008

(by Agency/Account $ in millions)

Year	Agency & Account	Botswana	Cote d'Ivoire	Ethiopia	Kenya	Mozam-bique	Namibia	Nigeria	Rwanda	South Africa	Tanzania	Uganda	Zambia	Country Totals
FY2004	USAID/CSH	0	0	16.5	22.28	10.55	3.97	18.95	8.5	25.7	12.5	23	22.5	164.44
	USAID & HHS PMTCT	1.52	0.26	3.46	6.33	1.56	1.57	8.07	1.96	3.12	4.38	4.94	3.31	40.48
	HHS/GAP	7.55	5.25	5.8	8.12	2.34	1.5	3.06	1.13	4.82	3.88	8.04	2.91	54.4
	STATE/GHAI	15.28	18.85	22.33	55.75	23.02	17.46	40.86	27.65	55.64	49.98	54.79	52.94	434.54
FY2004 TOTAL	**ACTUAL**	**24.34**	**24.36**	**48.09**	**92.47**	**37.47**	**24.5**	**70.93**	**39.24**	**89.27**	**70.75**	**90.77**	**81.66**	**693.86**
FY2005	USAID & HHS PMTCT	0.24	0	0	0	0	0	0	1.3	0.88	0	1.5	0	3.92
	HHS/GAP	7.55	5.25	5.8	8.12	2.34	1.5	3.06	1.13	4.82	3.88	8.04	2.91	54.4
	STATE/GHAI	44.05	39.12	77.93	134.82	57.88	41.02	107.19	54.47	142.49	104.9	138.9	127.17	1,069.95
FY2005 TOTAL	**ACTUAL**	**51.84**	**44.38**	**83.73**	**142.94**	**60.22**	**42.52**	**110.25**	**56.91**	**148.19**	**108.78**	**148.44**	**130.09**	**1,128.27**
FY2006	HHS/GAP	7.55	5.25	5.8	8.12	2.34	1.5	3.06	1.14	4.82	3.88	8.04	2.91	54.4
	STATE/GHAI	47.38	41.36	117.16	200.15	92.08	55.79	160.55	70.97	216.72	126.08	161.84	146.11	1436.18
FY2006 TOTAL	**PLANNED**	**54.93**	**46.61**	**122.96**	**208.27**	**94.42**	**57.29**	**163.61**	**72.1**	**221.54**	**129.97**	**169.88**	**149.02**	**1,490.58**
FY2007	HHS/GAP	7.55	5.25	5.8	8.12	2.34	1.5	3.06	1.14	4.82	3.88	8.04	2.91	54.4
	STATE/GHAI	63.67	60.16	210.97	315.01	144.15	81.56	266.8	91.31	357.91	178.6	206.39	189.1	2165.62
FY2007 TOTAL	**PLANNED**	**71.21**	**65.41**	**216.77**	**323.13**	**146.49**	**83.06**	**269.85**	**92.44**	**362.73**	**182.48**	**214.43**	**192.01**	**2,220.02**

Source: State Department data sheets on PEPFAR Africa funding by account provided to CRS on April 9, 2007.

Notes: For account titles, see **Table 5.**

Legislative Action, 2000-2004

The Global AIDS and Tuberculosis Relief Act of 2000 (P.L. 106-264), enacted in August 2000, authorized funding for FY2001 and FY2002 for a comprehensive, coordinated, worldwide HIV/AIDS effort under USAID. In the 107th Congress, several bills were introduced with international or Africa-related AIDS-related provisions. A major international AIDS authorization bill, H.R. 2069, passed both chambers during the 107th Congress but did not go to conference.[35] In May 2003, Congress approved and President Bush signed into law H.R. 1298/ P.L. 108-25, the U.S. Leadership Against HIV/AIDS, Tuberculosis, and Malaria Act of 2003. It authorized th establishment of PEPFAR and the allocation of $3 billion per year for the program from FY2004 through FY2008 (a total of $15 billion), and created the office of the Global AIDS Coordinator at the State Department. Appropriations measures have supported a variety of programs helping Africa fight the pandemic.[36]

Legislation in the 109th Congress

P.L. 109-95 (formerly H.R. 1409, Lee), the Assistance for Orphans and Other Vulnerable Children in Developing Countries Act of 2005, was signed into law in November 2005. P.L. 109-102 (formerly H.R. 3057, Kolbe), the Foreign Operations, Export Financing, and Related Programs Appropriations Act, 2006 and P.L. 109-149 (formerly H.R. 3010, Regula), the Departments of Labor, Health and Human Services, and Education, and Related Agencies Appropriations Act, 2006, provided the bulk of U.S. international AIDS funding in FY2006. Bills introduced in the 109th Congress, with provisions related to the African AIDS pandemic, included the following: H.R. 155 (Millender-McDonald), Mother to Child Plus Appropriations Act for Fiscal Year 2005; H.R. 164 (Millender-McDonald), International Pediatric HIV/AIDS Network Act of 2005; H.R. 2601 (Smith), Foreign Relations Authorization Act, Fiscal Years 2006 and 2007; S. 600 (Lugar), Foreign Affairs Authorization Act, Fiscal Years 2006 and 2007; S. 850 (Frist), Global Health Corps Act of 2005; and S. 2125 (Obama), Democratic Republic of the Congo Relief, Security, and Democracy Promotion Act of 2005.

Legislation in the 110th Congress

Apart from appropriations legislation that would fund global HIV/AIDS assistance programs, legislation introduced in the 110th Congress that focus on AIDS in Africa include:

- S. 805 (Durbin) and H.R. 3812 (Lee), both entitled African Health Capacity Investment Act of 2007, would have authorized the President to provide assistance, including through international or nongovernmental organizations, for programs to improve human health care capacity in sub-Saharan Africa. They would direct the President to develop and transmit to Congress a strategy for coordinating, implementing, and monitoring assistance programs for human health care capacity in sub-Saharan Africa.
- H.R. 1713 (Lee) and S. 2415 (Clinton), both entitled Protection Against Transmission of HIV for Women and Youth Act of 2007. The bills would have directed the President to: (1) formulate and submit to the appropriate

[35] For information on appropriations for HIV/AIDS programs, see CRS Report RS21114, *HIV/AIDS: Appropriations for Worldwide Programs in FY2001 and FY2002*, by Raymond W. Copson.

[36] For further information, see CRS Report RL33485, *U.S. International HIV/AIDS, Tuberculosis, and Malaria Spending: FY2004-FY2008*, by Tiaji Salaam-Blyther.

- congressional committees, and make available to the public, a comprehensive and culturally appropriate global HIV prevention strategy that addresses the HIV vulnerability of married and unmarried women and girls and seeks to reduce the factors that lead to gender disparities in HIV infection rates; (2) ensure that the United States coordinates its overall HIV/AIDS policy and programs with foreign governments, international organizations, other donor countries, and indigenous organizations; and (3) provide clear guidance to U.S. field missions.
- S.Con.Res. 31 (Feingold), entitled A concurrent resolution expressing support for advancing vital United States interests through increased engagement in health programs that alleviate disease and reduce premature death in developing nations, especially through programs that combat high levels of infectious disease improve children's and women's health, decrease malnutrition, reduce unintended pregnancies, fight the spread of HIV/AIDS, encourage healthy behaviors, and strengthen health care capacity.

During the first session of the 110th Congress, the Senate Foreign Relations Committee held the following two hearings on HIV/AIDS:

- Perspectives on the next Phase of the Global Fight Against Aids, Tuberculosis, and Malaria, December 13, 2007; and
- The Next Phase of the Global Fight Against HIV/AIDS, October 24, 2007.

During the first session of the 110th Congress, the Subcommittee on Africa and Global Health of the House Committee on Foreign Affairs held the following hearing on HIV/AIDS:

- The President's Emergency Plan for AIDS Relief: Is It Fulfilling the Nutrition and Food Security Needs of People Living with HIV/AIDS?, October 9, 2007.

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